



BUILDING GLOBAL COMMUNICATIONS

NOTICE OF EX PARTE

April 4, 2002

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: WT Docket No. 99-168: Service Rules for the 746-764 and 776-794 MHz Bands and Revisions to Part 27 of the Commission's Rules

Dear Ms. Salas,

In accordance with Section 1.1206 of the Commission's Rules, this letter provides notification of an *ex parte* meeting on Tuesday, March 26, 2002 between representatives of the Private Radio Section (PRS) of the Telecommunications Industry Association's Wireless Communications Division, public safety organizations, and members of the FCC staff to discuss technical issues associated with the above-captioned proceeding. Please associate this notification in WT Docket No. 99-168. Copies are being sent to the FCC staff members that participated in the meeting.

At the request of the FCC, the purpose of this meeting was to follow-up on the previous *ex parte* meeting of August 15, 2001 discussing the technical underpinnings of the petition for reconsideration filed by the National Public Safety Telecommunications Council ("NPSTC") in the above referenced proceeding.¹ NPSTC is seeking reconsideration of the FCC's rules relating to the operational and technical performance of commercial mobile radio systems operating in spectrum blocks C and D within the 746-806 MHz band.² Specifically, NPSTC is concerned that the overall requirement for out-of-band emission (OOBE) limits for commercial systems is insufficient to protect public safety operations in the 764-776/794-806 MHz bands.

As an outcome of the August 15, 2001 *ex parte* meeting, additional input from PRS subsequently was filed on November 6, 2001³ which demonstrated conclusively that if 700 MHz commercial systems are allowed to deploy in a manner consistent with the existing rules, significant harmful interference to 700 MHz public safety systems would result. The goal is to fully apply experiences learned in the 800 MHz band to the 700 MHz band while developing rules in the latter ensuring compatibility between 700 MHz commercial and public safety services.

¹ See *Ex Parte Letter from Derek R. Khlopin, TIA, to Magalie Roman Salas*, WT Docket No. 99-168, August 17, 2001.

² *Petition for Reconsideration by The National Public Safety Telecommunications Council*, WT Docket No. 99-168, submitted March 7, 2001 (NPSTC Petition).

³ See *Letter from Bill Belt, TIA, to Stan Wiggins, FCC*, WT Docket No. 99-168, November 6, 2001.

The following persons participated in this *ex parte* meeting:

FCC Staff

Wireless Telecommunications Bureau

Jared Carlson, Deputy Chief, Policy Division
Stan Wiggins, Sr. Staff Attorney, Policy Division
Martin Liebman, Engineer, Policy Division
Jeanne Kowalski, Deputy Chief, Public Safety and Private Wireless Division
Michael Wilhelm, Public Safety and Private Wireless Division, and Designated Federal Officer, National Coordination Committee
Tim Maguire

Office of Engineering and Technology

Robert Eckert, Chief, Technical Analysis Branch
Robert Bromery, Chief, Electromagnetic Compatibility Division
Harry Wong, Technical Analysis Branch
Salomon Satche

TIA PRS Representatives

Wayne Leland, Motorola; Chairman, TIA Private Radio Section
John Oblak, EF Johnson; Chairman, TIA TR-8 Committee, Mobile and Personal Private Radio Standards
Bernie Olson, Motorola; Chairman, TIA TR-8.18 Subcommittee on Wireless Systems Compatibility

Dr. Ernest Hofmeister, Tyco Electronics M/A-COM
W. Roy McClellan, III, Nortel Networks (via teleconference)
Robert Speidel, Tyco Electronics M/A-COM
John Derr, TIA Staff
Derek Khlopin, TIA Staff
Michael Lewis, Wiley Rein & Fielding

Public Safety Representatives

Robert Gurss, Shook Hardy & Bacon (counsel to APCO)
Harlin McEwen, International Association of Chiefs of Police

The TIA PRS representatives explained a concern on the part of both manufacturers and users of public safety communications systems that the situation currently being encountered with interference between public safety and commercial systems in the 800 MHz public safety band could be repeated in the 700 MHz public safety band if real world experiences learned were not applied before spectrum was auctioned and licenses granted.

The public safety representatives noted the critical importance of not re-creating the interference problems found in the 800 MHz public safety band in the 700 MHz public safety band 5 years down the road. They indicated that problems have been found to be most prevalent in metropolitan population centers.

The TIA representatives attempted to clarify and answer the staff's questions about technical ramifications of the interference problem. One area that had not been anticipated when public

safety systems were designed for the 800 MHz band pertained to the prevalence of much lower antenna heights for CMRS systems. At one time, these had more commonly been at heights of 200-300 feet whereas it was not uncommon to find heights as low as 25 feet today. Upon query as to what solutions would provide the greatest technical relief, prohibiting the deployment of commercial base station transmitters in the upper half of the 700 MHz band and allowing greater power levels for public safety equipment (provided this was accomplished in a cost effective manner for public safety users) were both thought to be viable approaches and the latter could be coordinated through the NCC.

The representatives from TIA PRS were asked by the FCC staff to comment on the relatively small number of oppositions that were recently filed against the TIA PRS and NPSTC technical positions. Some of these commenters stated that TIA's pleading is procedurally defective for being late filed and repetitious of previously dismissed arguments.⁴ However, TIA's analysis was submitted in response to a petition for reconsideration that was timely filed by NPSTC. We note that the commenters did not assert that NPSTC's petition was procedurally defective.

Further, the public interest compels the FCC to consider further analysis raising concerns about potential interference to public safety communications systems. While the FCC has indeed considered similar arguments during the course of this proceeding, the industry's -- and the FCC's -- understanding of interference mechanisms between commercial and public safety wireless networks is increasing almost daily as a result of the on-going efforts to resolve 800 MHz interference situations. The unanimity among TIA PRS members about interference to 700 MHz public safety systems caused by the FCC's technical standards is almost unprecedented in its scope. With the potential risks so great, the public interest and Section 1.429(b)(3) of the rules compel full FCC consideration of the merits of all submitted data.

Moreover, the technical objections raised in response to TIA's analysis are cursory and lack specifics. Most argue that the recommendations of TIA PRS should be rejected because: (1) they propose a level of protection exceeding past FCC practices; (2) only "some" public safety bases stations would actually be subjected to potential interference, and (3) the real problem is the poor selectivity of public safety mobile receivers.⁵ TIA PRS notes that these parties have not submitted any data suggesting that the existing rules are sufficient to prevent interference. To this end, one of the opponents even concedes that "a 700 MHz CMRS-like base station site in close proximity to a PS site could produce an isolated case of base-to-base interference."⁶

Additionally, the commenting parties have not submitted any data supporting their contention that public safety receiver selectivity is the main source of the problem. In the view of TIA PRS, their comments reflect a lack of understanding on the requirements for public safety communications and that a tradeoff exists on intermodulation rejection performance versus sensitivity. While manufacturers are considering lowering the sensitivity requirement so that receivers can be made more robust, the out of band emissions must be controlled so that the required C/(I+N) is achieved.

⁴ See, e.g., *Letter from Douglas I Brandon, AT&T Wireless to Magalie Roman Salas, FCC*, WT Docket No. 99-168, January 17, 2002 at 1, 2.

⁵ See *id.* at 2; see also *Letter from Donald C. Brittingham, Verizon Wireless, to Magalie Roman Salas, FCC*, WT Docket No. 99-168, January 25, 2002, at 2, 3.

⁶ *Letter from Brian F. Fontes, Cingular Wireless, to Magalie Roman Salas, FCC*, WT Docket No. 99-168, January 23, 2002, at 2.

The TIA PRS representatives stated, for the record, that, in their collective opinion, the single greatest step that the Commission could take to reduce instances of potential 700 MHz public safety interference is to revert back to the original band plan and keep commercial base station operations confined to the 747-762 MHz band. It was the unanimous position of these manufacturers that allowing commercial base stations to operate in the 777-792 MHz band will create significant harmful interference to public safety systems with little real world resolutions available.

The PRS manufacturers stated that the second most relevant interference mitigation technique would be increasing the signal level of public safety systems (now typically designed to provide a 40 dBµV/m level at the edge of the operational service area) to help overcome intermodulation effects. It was noted that this may not be an FCC rules issue as much as it is a NCC frequency coordination matter.

TIA PRS also argued that greater out-of-band emission suppression – consistent with the levels that it previously recommended – would provide additional protection to public safety systems. Absent that, some FCC mechanism would be needed to increase coordination between commercial and public safety system deployment. Also, public safety users would require greater assurance that sources of commercial interference can be immediately stopped when public safety is responding to a specific event and before a permanent solution can be remedied.

Please call the undersigned should there be any questions with this submission.

Sincerely,

/s/

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